

Calculation of barometric pressure (2 methods)

- a. If a handheld barometer is available, record the current barometric pressure “inHg.” This value will need to be converted to mmHg using the following equation:

$$\frac{ABS \text{ inHg}}{0.0393701} = ABS \text{ mmHg}$$

Where:

ABS inHG = The absolute barometric pressure from the handheld barometer (inHg)

ABS mmHg = The absolute barometric pressure (mmHg)

- b. If no barometer is available check the nearest weather station before you service the instrument for barometric pressure in mbar (Weather Bureau station is preferred <http://www.wrh.noaa.gov/otx/>). You will first need to convert from mbar to mmHg.

$$0.75 \times BP_{mbar} = BP_{mmHg}$$

Weather stations report a corrected barometric pressure, which is barometric pressure at sea level (BP). To convert the barometric pressure at sea level to barometric pressure at altitude BP' Use the following equation:

$$BP' = BP - 2.5 \left(\frac{A_{ft}}{100} \right)$$

Where:

BP' = Barometric pressure at altitude mmHg

BP = Barometric pressure at sea level mmHg

A_{ft} = Altitude in feet